Name:

at1110paper_practice_test (v102)

1. Expand the following expression into standard form.

$$(7x + 8)(7x - 8)$$

$$49x^2 - 56x + 56x - 64$$
$$49x^2 - 64$$

2. Solve the equation with factoring by grouping.

$$10x^2 + 15x + 8x + 12 \;=\; 0$$

$$(5x + 4)(2x + 3) = 0$$
$$x = \frac{-4}{5} \qquad x = \frac{-3}{2}$$

3. Expand the following expression into standard form.

$$(9x - 2)^2$$

$$81x^2 - 18x - 18x + 4$$
$$81x^2 - 36x + 4$$

4. Solve the equation.

$$7x^2 - 34x - 19 \;=\; 2x^2 + 3x + 5$$

$$5x^2 - 37x - 24 = 0$$
$$(5x + 3)(x - 8) = 0$$
$$x = \frac{-3}{5} \qquad x = 8$$

5. Solve the equation.

$$(3x - 5)(4x - 7) \;=\; 0$$

$x = \dfrac{5}{3}$ $\qquad$ $x = \dfrac{7}{4}$

6. Factor the expression.

$$16x^2 - 9$$

$(4x - 3)(4x + 3)$

7. Factor the expression.

$$x^2 + x - 20$$

$(x - 4)(x + 5)$

8. Expand the following expression into standard form.

$$(8x - 7)(2x + 5)$$

$16x^2 + 40x - 14x - 35$

$16x^2 + 26x - 35$